Standard Operating Procedure Interim Change Notice (ICN) Effective Date: 3/17/03									
			3 Page(s)						
Sectio	n 1: Description of Chan	ge (Requestor completes)	1. Document Catalog No.: ER2003-0150						
2. SC	OP & Rev No.: 01.04, R5	3. Interim Change No.: 1	4. SOP Title: Sample Control and Field Documentation						
5. Desc	cription of Change:								
3.0 Add:	TRAINING:								
3.2A									
3.2B	Data Management staff shall document the required classroom training on a Training Attendance sheet, submitting a copy to the RRES-R Training Specialist and the original to the RPF.								
3.2C	C Classroom-trained, field team members performing OJT shall document the OJT in an Oral Communication Form (QP-3.5), including the names, signatures, and "Z" numbers of trainer and trainee and the trained-to SOP identifier, name, and revision number.								
3.2D	D The OJT trainer shall submit a copy to the RRES-R Training Special and the original to the RPF.								
8.0	PROCEDURE Add after first "Note" in 8.3.7: 8.3.8 If collecting only field screening/measurement results - note that the sample container(s) is not collected by lining through the container(s) and writing in "container(s) not collected"; - change the sample usage code to "SCR" to indicate a screening sample; - ensure that all required signatures are applied; and - list the field screening/measurement results in the field screening/measurement results section on the SCL.								
	"Note" below 8.3.8, replace 15 th bullet, "Water Flowing" with the following text: "If collecting a water sample, indicate whether or not the water was flowing at collection time by checking "yes" or "no"; if not collecting a water sample, check "NA."								
	Change order of "Sample Description" and "Field Screening/Measurement Results" bullets. Delete "Photo ID" bullet.								
Add:	l: 8.4 Perform SCL Change Control If determined, after sample and field paperwork submittal, that completed SCLs require an update, the FTL shall return to the SMO and update the original SCL, initialing and dating the change point.								
10.0	0.0 RECORDS Add:								
	- Training Attendance Sheet - Oral Communication Form								
12.0 ATTACHMENTS 1) Replace Attachment C: Sample Collection Log 2) Add "OJT, On the Job Training" to Attachment H.									
6. Attac	chments Modified, Added, o	r Removed: 🛛 Y	es 🗆 No						

Standard Operating Procedure Interin	m Change Notice (ICN) Effective Date: 3/17/03 3 Page(s)					
7. ICN Justification: Improves the process in order to decrease incomplete Sample C	ollection Log fields.					
8. Requestor: Felicia Aguilar [Signature on File] (Print name, then sign.)	03/17/03 (Date)					
Section 2: Evaluation and Approval (QPPL and Focus Area Leader complete)						
9. Evaluation Remarks: (If none enter N/A) N/A						
10. Project Team Leader: Sheila Zhang [Signature on File] (Print name, then sign.)	03/17/03 (Date)					
11. Technical Reviewer: E. Jeanne Hamilton [Signature on File] (Print name, then sign.)	03/17/03 (Date)					
12. QPPL: Larry Maassen [Signature on File] (Print name, then sign.)	03/17/03 (Date)					
QP-4.2, R3	Los Alamos National Laboratory Remediation Program					

Los Alamos National Laboratory Environmental Restoration Project Los Alamos, NM 87545

AS PLANNED

SAMPLE COLLECTION LOG

Page 1 of 27

AS COLLECTED

SAMPLE ID: CAPU-02-45071

EVENTID: 102

AS COLLECTED

EVENT NAME: Round 4 Pueblo Cyn Surface Water sampling

AS PLANNED

DATE COLLECTED (MN	M/DD/YYYY):		EVAL CLASS:	ws
TIME COLLECTED (HH	:MM):		SAMPLE TECH CODE:	DC
PRS ID: PR	S: C-00-005		FIELD QC TYPE:	NA
LOCATION ID: 00-	10241		COMPOSITE TYPE:	NA
LOCATION TYPE: GE	NERIC		FIELD PREP:	F
TOP DEPTH (FT): 0.0	9000	(FT/cm/NA)	SAMPLE USAGE:	
BOTTOM DEPTH (FT): 0.0	0000	(FT/cm/NA)	WATER FLOWING :	YES NO NA
FIELD MATRIX: WS			SCREEN/PORT DE	SC (wells only):
			ER SOP Followed:	
# CONTAINER	PRESERVATIVE	ORDER	ANALYTICAL SPECIAL IN	STRUCTIONS
4 250 ML AMBER GLASS	H2SO4	DOC		
5 1 L POLY	HNO3	METALS+Mo+Si GEL		
6 1 L POLY	H2SO4	NH3+PO4+NO3NO2		
7 1 L POLY	ICE	Alk+Anions+Perclorate		
8 1 GAL POLY	HNO3	AM241+GS+ISOPU+IS OU+SR90		
ADDITIONAL INFORMATION	l (optional): Speci	al Instructions:		
SAMPLE DESC:				
SAMPLE LOCATION DESC: Location Description:	00-10241			
FIELD SCREENING/MEASU	REMENT RESULTS:			
COLLECTED BY: (PRINTED NA	AME)		SIGNATURE)	(DATE)
REVIEWED BY: (PRINTED N	AME)		SIGNATURE)	(DATE)

Identifier: SOP-01.04	Revision: 5	Effective Date: 12/12/02
1061111161. 301 -01.04	I VE VISIOII. J	I LIIGUIIVE DAIG. 12/12/02

ER Document Catalog Number: ER2002-0282

Author: Felicia M. Aguilar

Environmental Restoration Project Standard Operating Procedure

For: Sample Control and Field Documentation



Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the United States Department of Energy under contract W-7405-ENG-36.

Revision Log

Revision No.	Effective Date	Prepared By	Description of Changes	Affected Pages
Revision 4	08/30/01	Felicia M. Aguilar	Revise to document process as it is currently implemented.	All
ICN	4/18/02	Felicia M. Aguilar	Interim Change Notice to update process for requesting field sampling paperwork and attach new examples of paperwork.	All
Revision 5	12/12 /02	Felicia M. Aguilar	Incorporates all ICN1 changes.	All

Sample Control and Field Documentation

Table of Contents

1.0	PURP	OSE	4
2.0	SCOF	'E	4
3.0	TRAIN	IING	4
4.0	DEFIN	IITIONS	5
5.0	BACK	GROUND AND PRECAUTIONS	5
6.0	RESP	ONSIBLE PERSONNEL	5
7.0	EQUIF	PMENT	6
8.0		EDURE	
0.0	8.1	Perform Request Notification	
	8.2	Generate Sample Control and Field Documentation	
	8.3	Complete Sample Collection Logs	
	8.4	Use Field Chain of Custody Forms	
	8.5	If Delivering Samples to the SMO	
	8.6	If Delivering Samples to Another Analytical Laboratory	
	8.8	Collect the Samples	13
	8.9	Complete Sample Control and Field Documentation	
	8.10	Complete Field Investigation Summaries	
	8.11	Perform Field Closeout	15
9.0	LESS	ONS LEARNED	15
10.0	RECC	PRDS	15
11.0	REFE	RENCES	16
12.0	ATTA	CHMENTS	16
	Samp	le Control and Field Documentation Work Process Flow Chart	17
	Sampl	le Labels	18
	Samp	le Collection Log	19
	Samp	le Field Chain of Custody Form	20
	Samp	le Custody Seal	21
	Daily A	Activity Log	22
		of	
		logical Screening Data Release Form	
	List of	Acronyms and Abbreviations	24

Sample Control and Field Documentation

1.0 PURPOSE

This Standard Operating Procedure (SOP) describes the process for documenting the traceability of samples collected for the Environmental Restoration (ER) Project using sample control and field documentation, specifically, container labels, Sample Collection Logs, Chain of Custody (COC)/Request for Analysis forms, and Daily Activity Log forms or field notebooks.

2.0 SCOPE

- 2.1 All **ER Personnel** shall implement this mandatory SOP when documenting the traceability of samples collected for the ER Project.
- 2.2 **ER Project participants** shall use this SOP in conjunction with DI-4.11, Completing the SMO Analytical Order and Field Paperwork Request.
- 2.3 **Subcontractors** performing work under the ER Project's quality program shall follow this SOP for documenting the traceability of samples collected for the ER Project.

3.0 TRAINING

- 3.1 **ER Personnel** shall train to and use the current version of this SOP; contact the author if the SOP text is unclear.
- 3.2 **ER Personnel** using this SOP shall document training in the ER training database located at http://erinternal.lanl.gov/Training/login.asp in accordance with QP-2.2.
- 3.3 **Users** of the software that generates field paperwork shall train by classroom and on-the-job training according to SMO and Data Management staffs' requirement.
- 3.4 All **users** of this SOP shall train to DI-4.11 by reading the Desk Instruction and attending a Data Management training session.
- 3.5 The **FTL** or designee shall monitor the proper implementation of this procedure and shall ensure that relevant team members complete all applicable training assignments in accordance with QP-2.2.

4.0 DEFINITIONS

- 4.1 Chain of custody (COC)—The procedural steps to assure traceability of a sample from initial collection to final disposition. A sample is in one's custody when one or more of the criteria listed below are satisfied:
 - The sample is in one or more of the field team members' physical possession
 - The sample is in one's view after being in one's physical possession.
 - The sample is in a locked or secured area (accessible only to authorized personnel) and maintained in a manner that would make any tampering evident.

Documentation of these criteria provides evidence that the chain of custody was maintained. The Field COC form documents the traceability of the sample and the sample location.

- 4.2 *Technical team members*—The individuals working on the project.
- 4.3 Field team members—Those authorized individuals present at a sampling site during sample collection. Their presence at the site must be documented. This is done with site access lists or sign-in sheets that are kept outside the exclusion zone. The documentation is required per HAZWOPER. In the case of an emergency the FTL must know who is on site.
- 4.4 *SMO application*—The software used to generate field paperwork and electronic files.

5.0 BACKGROUND AND PRECAUTIONS

All work performed for the ER Project must be thoroughly and accurately documented. Sample control and field documentation are necessary to document the work performed in the field, to ensure traceability and defensibility of resulting data, and to be legally defensible. Lack of complete documentation may render the fieldwork invalid.

6.0 RESPONSIBLE PERSONNEL

The following personnel are responsible for activities identified in this procedure.

- 6.1 Data Management Staff
- 6.2 ER Personnel
- 6.3 Field Team Leader or designee
- 6.4 Requester

- 6.5 Sample Management Office Staff
- 6.6 Technical and Field Team Member
- 6.7 University of California Technical Representative
- 6.8 User

7.0 EQUIPMENT

The list below represents the equipment necessary to complete the tasks defined in this procedure.

- Computer
- Compatible printer

8.0 PROCEDURE

Users of this SOP may reference Attachment A for a process flow chart of this procedure.

- 8.1 Perform Request Notification
 - 8.1.1 The **requester** shall notify the Sample Management Office (SMO) and Data Management by completing and submitting the SMO Analytical Order and Field Paperwork Request spreadsheet per DF 4.11.
 - 8.1.2 The **requester** shall notify the SMO and Data Management staff at least two weeks, and preferably 30 days, before fieldwork commencement, of the required number and types of samples and types of analyses.
 - **Note:** This 14-30 day notification allows the SMO to ensure adequate analytical laboratory capacity for the requested analyses and turnaround times and allows Data Management to generate draft sampling paperwork and allows the requester to review the draft sampling paperwork for final printing.
 - **Note:** This spreadsheet also documents any special instructions or requests. Contact the Data Management staff if questions arise while completing the SMO analytical order and field-paperwork, request spreadsheet.
- 8.2 Generate Sample Control and Field Documentation
 - 8.2.1 The **Data Management staff** shall generate the draft paperwork.
 - 8.2.2 The **SMO staff** shall generate the order templates.

- 8.2.3 The **requester** shall review the draft-sampling paperwork or summaries, either approving for final printing or coordinating with Data Management staff to correct problems.
- 8.2.4 The **SMO** staff shall perform the following actions: 1) print the approved paperwork, 2) pull the containers needed, and 3) provide the sampling kits to the requester.
- 8.2.5 While collecting samples, the **Field Team Leader (FTL) or designee** shall complete all the blank fields in the Sample Control and Field Documentation.
- 8.2.6 The **FTL** or designee shall correct the planned values by filling in the "as collected" spaces, based on field observations. If the planned values are accurate, the **FTL** or designee shall write in "OK" in the "as collected" spaces.
- **Note:** To fill in multiple spaces an "OK" with an arrow below it through the spaces that are accurate is acceptable.
- 8.2.7 The **FTL** or designee shall ensure that sample labels (Attachment B) that provide information regarding the samples are affixed to the sample containers prior to or immediately following the sampling activity.
- 8.2.8 The **FTL or designee** shall ensure that the blank fields are completed; these include Date and Time of sample collection and the Field Point of Contact.

Note: Each label includes the following information:

- <u>Location</u>: A unique number that allows entry of location information into the ER database.
- <u>Container Code</u>: The type of container assigned to this sample.
- <u>Special Instructions</u>: Special instructions requested of the laboratory.
- Date, Time: Date and time of sample collection.
- <u>Sample ID</u>: Sample identification number and container number for each sample in shipment.
- <u>Analysis</u>: Analytical method requested for type of contaminant for which sample is analyzed.
- <u>Preservative</u>: Type of preservative needed for a particular analysis (e.g., ice, HN03, none).
- Field POC, Initials: Printed name and initials of point of contact.

Note: The Date/Time and Field POC Initials must be completed in the field; all other fields are pre-populated based on information provided in the SMO Analytical Order and Field Paperwork Request.

- 8.3 Complete Sample Collection Logs
 - 8.3.1 The **FTL** or designee shall ensure the completion of the Sample Collection Log (SCL) (Attachment C) (i.e., recording all information pertinent to the collection of sample media on this log).
 - 8.3.2 The **FTL** or designee shall ensure that all fields on the SCL are complete (i.e., information supplied for all fields provided).

Note: Write "N/A" (for "not applicable") in the field as appropriate.

- 8.3.3 The **FTL or designee** shall record additional information, as necessary, on either an attachment to the SCL, the Daily Activity Log, or the Field Notebook, as appropriate.
- 8.3.4 The **FTL** or designee shall complete the SCL by signing it; this documents the collection of the sample.
- 8.3.5 An independent **field team member** shall review the SCL to ensure its completeness and accuracy, indicating review with an approval signature.
- 8.3.6 The **FTL or designee** shall submit the SCLs to SMO staff when the samples are submitted.
- 8.3.7 For planned but not collected samples, the **FTL or designee** shall return the SCLs and Field COC forms to the SMO with the words "not collected" written across the SCLs and Field COC forms, ensuring all required signatures applied.

Note: Make a photocopy of the log at the SMO for the FTL records, as appropriate.

Note: SCL entries include the following fields, for look-up tables or a "cheat sheet," of the allowable entries for each of the fields, go to DI-4.11:

- <u>Sample ID</u>: A unique identification number assigned to each sample. Do not fill in by hand or modify Sample IDs. The samples IDs are unique and not field assigned.
- Event ID and Event Name: The unique identification number and name assigned to the sampling event during its generation.
- Date and Time Collected: Date and time of sample collection.

- PRS ID: The PRS associated with this sample.
- <u>Location ID</u>: This unique identifier allows entry of location information into the ER database and ties the exact location with the analytical results.
- <u>Location Type</u>: A general location description based on the sampling-event, planning document and site knowledge. See the Location_Type look-up table for a list of allowed values.
- <u>Top and Bottom Depth</u>: Sample begins and end depths in inches or feet, including unit (e.g., depth of sample in feet, distance on transect in feet).
- <u>Field Matrix</u>: Description of the sample's matrix as perceived by the field person collecting the sample. See the Field_Matrix look-up table for a list of allowed values.
- <u>Eval Class</u>: Formerly referred to as "media code" (based on the sampling event planning document and site knowledge), for the sample collected. See the Eval_Class look-up table for a list of allowed values.
- <u>Sample Tech Code</u>: The technique code for the technique used to collect the sample. See the Sample_Tech_Code look-up table for a list of allowed values.
- <u>Field QC Type</u>: The type of QA/QC sample, if not a regular sample. These include field duplicates and triplicates, field rinsates, field prepared blanks, field splits, collocated, and performance evaluation samples. See the Field_QC_Type look-up table for a list of allowed values.
- <u>Composite Type</u>: If composite samples are collected, identify the type of composite sample. See the Composite_Type lookup table for a list of allowed values.
- <u>Field Prep</u>: The appropriate field preparation method applied, in the field, on the sample collected. See the Field_Prep look-up table for a list of allowed values.
- <u>Sample Usage</u>: The usage of the sample based on the sample event planning document. See the Sample_Usage look-up table for a list of allowed values.
- Water Flowing: If collecting a water sample indicate whether or not the water was flowing at collection time by writing in Yes or No.

- <u>Screen/Port Description</u>: If collecting a water sample from a well, indicate which screen or port was sampled.
- <u>ER SOP Followed</u>: The number, including revision number, of the LANL ER Standard Operating Procedure used for the sampling executed.
- <u>Special Instructions</u>: Any comments or special instructions for the sample, this may be preplanned or completed in the field.
- <u>Sample Description</u>: A description of the sample material collected.
- <u>Field Screening/Measurement Results</u>: The results of field screening conducted on a given sample (for example, photoionization detector or flame ionization detector readings in ppm, field high-explosive testing negative or positive). List both the field screening method and the measurements.
- <u>Sample Location Description</u>: General description of sampling location (e.g., borehole HDH-1 by TA-16-03, outfall samples in Mortandad Canyon, etc.).
- <u>Photo ID</u>: Photo information such as roll number, frame number, subject, and participants; include a caption for the photo or a description of the activity depicted.
- <u>Collected By Printed Name, Signature and Date</u>: Printed name and signature of person who collected the sample and the date the SCL was completed.
- Reviewed By Printed Name, Signature and Date: Printed name and signature of person who reviewed the SCL and the date the review was done.
- 8.4 Use Field Chain of Custody Forms
 - 8.4.1 The **FTL** or designee shall ensure the use of the Field Chain of Custody (COC) forms (Attachment D) to document the integrity of all samples and to maintain a record of sample collection and transfer between personnel.
 - **Note:** A unique control number must appear on each Field COC. Complete a Field COC for each sample collected.
 - 8.4.2 The **FTL** or designee shall ensure that information is supplied in all blank spaces on the Field COC form; if the space is not applicable, enter "N/A."

Note: The Field COC form contains the following information:

- <u>Event Name</u>: The name assigned to the sampling event during generation of the field sampling paperwork.
- <u>COC ID</u>: A unique number assigned to the individual form.
- <u>Sample ID</u>: A unique identification number assigned to each sample. Do not fill in by hand or modify the Sample IDs. The sample IDs are unique and not field assigned.
- <u>Sample Order Matrix</u>: Sample matrix description provided to analytical laboratory.
- <u>ER Team Leader</u>: Project Team Leader, Team Leader, or designee, as appropriate.
- FTL: The FTL responsible for collection of the sample.
- <u>Destination</u>: The SMO or analytical laboratory(s) within the Laboratory where samples are sent.
- Destination POC: The SMO or analytical laboratory contact.
- <u>Container ID</u>: The container number for each container that makes up the sample.
- Order: Analytical method requested for type of contaminant for which sample is analyzed.
- <u>Container Description</u>: Volume and type of container used.
- <u>Preservative</u>: Type of preservation needed for the particular analysis (e.g., ice, HN03, none).
- <u>Collected Y/N</u>: Indicate whether the container was collected by filling in "Y" or "N."
- Reason: Fill in the reason for not collecting a container. This is required if a container is not collected.
- <u>Special Instructions</u>: Additional relevant information pertaining to the samples (e.g., condition on receipt).
- Relinquished By and Date/Time: Printed name and signature of field team member transferring possession of samples to the mobile analytical laboratory(s) or SMO, or to any other authorized person and the date and time the samples are relinquished.
- <u>Received By and Date/Time</u>: Printed name and signature of the individual receiving the samples and the date and time the samples are received.

- **Note:** The individual accepting custody of a sample or set of samples must verify that all containers identified on the Field COC Form are contained in the package(s) requiring acceptance. The signature on the form acknowledges receipt of all the sample containers.
- 8.4.3 The **FTL** or designee shall ensure delivery of the samples to the SMO and/or other analytical laboratory(s) with completed Field COC form (i.e., inspect the forms for completeness and accuracy).
- 8.5 If Delivering Samples to the SMO
 - 8.5.1 The **FTL** or designee shall ensure that all copies of the Field COC form accompany the sample(s) on delivery to the SMO.
 - 8.5.2 The **FTL** or designee shall sign the Field COC Form in the "Relinquished By" block.
 - 8.5.3 **SMO staff** shall sign the form in the "Received By" block.
 - 8.5.4 The **FTL** and **SMO** shall note the date and time of the transfer.
 - 8.5.5 After the SMO acknowledges receipt of samples by signing the form, the **FTL or designee** shall submit the form with the samples.
 - **Note:** The **FTL** or designee may keep a photocopy of the Field COC.
 - 8.5.6 If samples delivered to the SMO require radiation screening for shipment to the analytical laboratory, the **FTL or designee** shall submit the samples to the radiation-screening supplier for screening; the supplier providing the screening then sends the results to the SMO.
 - 8.5.7 If the samples do not require radiation screening, based on historical knowledge or previous radiation screening done in the sampling area, the **FTL or designee** shall complete a Radiological Screening Data Release Form (Attachment G).
 - 8.5.8 If the previously-sampled area received radiation screening, the **FTL** or designee shall list the sample numbers previously screened within the "Reason" section of the form.
- 8.6 If Delivering Samples to Another Analytical Laboratory
 - 8.6.1 The **FTL** or designee shall sign the Field COC form in the "Relinquished By" field, and an individual at the mobile analytical laboratory signs the form in the "Received By" field; both note the date and time of the transfer.
 - 8.6.2 After an individual at the mobile analytical laboratory acknowledges receipt of samples by signing the form, the **FTL or designee** may keep a photocopy of the Field COC.

Note: The COC/Request for Analysis form signed off by the mobile analytical laboratory(s) is not a completed record because, after screening is completed, the form is used again to transfer the samples back to the field team for disposal. The FTL or designee may retain a photocopy from the initial interaction with the mobile analytical laboratory(s) for his/her use only.

8.7 Use Custody Seals

8.7.1 The **FTL** or designee shall ensure the use of Custody seals (Attachment E) in order to guarantee that samples are not tampered with during transport to the SMO or shipment to the analytical laboratories.

Note: The lid of every sample container is sealed with a custody seal. Ensure that the seal securely contacts both the bottle and the lid. The sample collector initials and dates each seal.

8.7.2 The **FTL** or designee shall ensure delivery of the sealed sample containers to the SMO and/or to the mobile analytical laboratory(s).

8.8 Collect the Samples

Field team members shall follow applicable SOPs for media-specific sample collection; these SOPs may require adherence to special instructions or completing additional forms.

8.9 Complete Sample Control and Field Documentation

The **FTL** or **designee** shall ensure the collection of all required field data and completeness of the sample control and field documentation. (If the information is "not applicable" to the project, put "N/A" as appropriate.)

Note: Do **not** destroy or discard documents even if they are illegible or contain inaccuracies that require replacement documents. Resolve any inaccuracies upon discovery by crossing through the error with a single line, correcting it on the original document, and initialing and dating the correction. If the correction is not self-explanatory, the individual must assign a number to the correction and attach to the original a sheet that fully describes the correction.

8.10 Complete Field Investigation Summaries

- 8.10.1 The **FTL** shall keep field notes that briefly summarize each day's progress.
- 8.10.2 **Field personnel** shall use bound field notebooks or Daily Activity Log forms (for use in loose-leaf notebooks), in addition to the sample control and field documentation, to record all pertinent field data; this includes detailed summaries of information pertaining to the field

investigation and additional field data (e.g., unusual events such as storms).

Note: If Field Notebooks are used, follow QP-5.7. These notebooks are tracked documents; unique identifiers (ER Project Document Catalog Numbers) are assigned to the notebooks.

Note: If Daily Activity Log Forms (Attachment F) are used, paginate each sheet of the Daily Activity Log for each day (e.g., 1 of 4, 2 of 4, etc.). Entries in the Field Notebooks or Daily Activity Log forms include the following:

- <u>Date</u>: Month, day, and year at the start of each day and at the top of each page.
- Time: The time of each activity.
- <u>Technical Area</u>: Two-digit number indicating the TA in which the sampling activities are executed.
- Operable Unit: Four-digit number indicating the OU in which the sampling activities are executed.
- <u>Site Work Plan</u>: If applicable, include the Site Work Plan number.
- <u>Signature</u>: Preparer must sign the entries at the end of each day.
- <u>Comments</u>: Comments may include, but are not limited to
 - a general description of work performed;
 - deviations from approved plans or procedures;
 - names and affiliations of all ER Personnel on site (field team members and/or visitors);
 - a description of general field conditions (weather...) encountered;
 - problems encountered/ resolutions implemented;
 - sketches and calculations pertaining to the job;
 - supplies and equipment used;
 - when photographs are taken in the field, the time, date, location, roll identification number, frame number, general compass direction, a description of the subject matter, and the photographer's name must be recorded;
 - decontamination practices, such as the time at which decontamination is performed;

- a description of waste generated as a result of the field investigation; and/or
- any additional field observations pertinent to the investigation.
- 8.11 Perform Field Closeout

The **FTL** shall ensure that ER personnel follow SOP-01.12.

9.0 LESSONS LEARNED

- 9.1 Before performing work described in this SOP, ER Personnel should go to the Department of Energy Lessons Learned Information Services home page, located at http://www.tis.eh.doe.gov/ll/ll.html, and/or the LANL Lessons Learned Resources web page, located at http://www.lanl.gov/projects/lessons_learned/, and search for applicable lessons.
- 9.2 During the performance of work, ER Personnel, if appropriate, shall identify, document, and submit lessons learned in accordance with QP-3.2.

10.0 RECORDS

- 10.1 The **FTL** shall submit the following records (processed in accordance with QP-4.4) to the Records Processing Facility:
 - Field Notebooks
 - Daily Activity Logs (if used)
 - Chain of Custody/Request for Analysis Forms for containers delivered to laboratories other than the SMO.
- 10.2 The **FTL** shall submit the following records to the SMO:
 - Completed SCLs and the Field COC forms for containers delivered to the SMO and for samples planned but "not collected".
- 10.3 The **SMO Staff** shall ensure the following records are submitted to the Records Processing Facility:
 - Sample Collection Logs and Field Chain of Custody/Request for Analysis forms for containers delivered to the SMO and for samples planned but "not collected."
- 10.4 The **Data Management data steward** and the **SMO staff** shall ensure that the following records are filed as necessary:
 - Sampling Paperwork Approval Form

11.0 REFERENCES

To implement properly this SOP, **ER Personnel** should become familiar with the contents of the following documents located at

http://erinternal.lanl.gov/home_links/Library_proc.shtml:

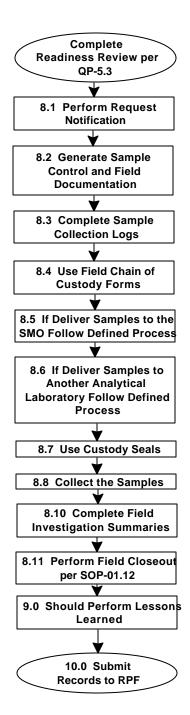
- DI-4.11, Completing the SMO Analytical Order and Field Paperwork Request
- QP-2.2, Personnel Orientation and Training
- QP-3.2, Lessons Learned
- QP-4.4, Record Transmittal to the Records Processing Facility
- QP-5.3, Readiness Planning and Reviews
- QP-5.7, Notebook Documentation for Environmental Restoration Technical Activities
- SOP-01.01, General Instructions for Field Investigations
- SOP-01.12, Field Site Closeout Checklist

12.0 ATTACHMENTS

The **user** of this SOP may locate all forms associated with this procedure at http://erinternal.lanl.gov/Quality/user/forms.asp unless otherwise noted.

- Attachment A: Sample Control and Field Documentation Work Process Flow Chart (1 page)
- Attachment B: Sample Labels (electronically generated) (1 page)
- Attachment C: Sample Collection Log (electronically generated) (1 page)
- Attachment D: Sample Field Chain of Custody Form (electronically generated) (1 page)
- Attachment E: Sample Custody Seal (Example only) (1 page)
- Attachment F: Daily Activity Log (1 page)
- Attachment G: Radiological Screening Data Release Form (1 page)
- Attachment H: Acronym and Abbreviation List (1 Page)

Sample Control and Field Documentation Work Process Flow Chart



Sample Labels

LOS ALAMO	S NATIONAL LAB	LOS ALAM	LOS ALAMOS NATIONAL LAB		OS NATIONAL LAB
Location:	Date:	Location:	Date:	Location:	Date:
09-02-19548		09-02-19548		09-02-19548	
Container Code:	Time:	Container Code:	Time:	Container Code:	Time:
500 ML AMBER GLASS Special Instructions:		500 ML AMBER GLASS Special Instructions:		500 ML AMBER GLASS Special Instructions:	
GW09-02-44028	1	GW09-02-44028	4	GW09-02-44029	2
Analysis: EPA:300		Analysis: SW-846:7196A		Analysis: EPA:365.2	
Preservative: NONE		Preservative: NONE	Preservative: NONE		
Field POC: Katzman, Dann	у	Field POC: Katzman, Dar Initials:	nny	Field POC: Katzman, Dann Initials:	у

LOS ALAMOS NATIONAL LAB			LOS ALAMOS NATIONAL LAB		LOS ALAMOS NATIONAL LAB			. LAB	
Location:	Date:		Location:	Date:		Location:	,	4	
09-02-19548			09-02-19548			09-02-19548			
Container Code:	Time:		Container Code:	Time:		Container Code:		: /	
500 ML AMBER GLASS			_500 ML AMBER GLASS			500 ML AMBER GLASS			
Special Instructions:			Special Instructions:			Special Instruction			
GW09-02-44028		2	GW09-02-44028		5	09-02			3
Analysis: EPA:365.2			Analysis: SW-846:9250		lacksquare	ysis: 376.			
Preservative: NONE			Preservative: NONE			erval			
Field POC: Katzman, Danny			Field POC: Katzman, Danny			PO(tzm	an, Danny		•
Initials:			Initials:			ls:			

LOS ALAMOS NATIO	LAB	OS ALA	IA IAL	LAB	LÓS ALAMO	OS NATIONAL LA	AB
Location:	V	tion:	Date:	L	ocation:	Date:	
09-02-19548	4 7	548		09	LO2-19548		
Container Code:		Code:	Time:	Co	ontainer Code:	Time:	
500 ML AMBER GLASS		OLLIL AMBER GLASS		50	0 ML AMBER GLASS		
Special Instructions:		pecial Instructions:		Sį	pecial Instructions:		
GW09-02-44028	3 (GW09-02-44029		1 G	W09-02-44029		4
Analysis: EPA:376.1	A	nalysis: EPA:300		1A	nalysis: SW-846:7196A		
Preservative: NONE	P	reservative: NONE		Pr	eservative: NONE		
Field POC: Katzman, Danny	F	ield POC: Katzman, Danny	1	Fie	eld POC: Katzman, Dani	ny	
Initials:	lr	nitials:		Ini	itials:		

Sample Collection Log

Los Alamos National Laboratory Environmental Restoration Project		Event ID: 1582	
Los Alamos, NM 87545	SAMPLE COLLECTION LOG	Event Name: R-20, Waste Water & Cuttings Sampling	. & Cuttings Sampling
	AS COLLECTED	AS PLANNED	AS COLLECTED
DATE COLLECTED (MM) (7):		EVAL CLASS: WGR	
TIME COLLECTED (HH: Mw.).	SAM	SAMPLE TECH CODE: DC	
PRS		FIELD QC TYPE: NA	
LOCATION ID: R		COMPOSITE TYPE: NA	
LOCATION TYPE: NOC		FIELD PREP: UF	
тор БЕРТН (FT): 0.0000	(FT (cm/NA)	SAMPLE USAGE: WST	
ВОТТОМ DEPTH (FT): 0.0000	(FT/cm/NA) WAT	WATER FLOWING (Y/N):	
MATERIA MATERIA		SCREEN/PORT DESC (wells only):	
NO STATE OF THE PARTY OF THE PA		ER SOP Followed:	
SAMPLE DESC:	SAMPLE LOCATIO Location Description:	SAMPLE LOCATION DESC: R-20 Location Description:	
FIELD SCREENING / MEASUREMENT RESULT		TO ID (roll id, exposure number) / CAPTION / DESC:	ON / DESC:
COLLECTED BY: (PRINTED NAME)	(SIGNATURE)		OATE
REVIEWED BY: (PRINTED NAME)			(DATE)
			(Aurie)

Sample Field Chain of Custody Form Date/Time: Date/Time: Page 1 of 8 SPECIAL INSTRUCTIONS DESTINATION SMO DEST. POC **Event Field Test** 882 EVENT NAME: Danny Katzman COLLECTED Y/N COC ID: CELINQUISHED BY (oninted name): FIELD TEAM LEADER: ER TEAM LEADER: ANALYSES REQUESTED FIELD CHAIN OF CUSTODY REC **PRESERVATIVE** None None 500 ML AMBER GLASS 500 ML AMBER GLASS MER DESC. 500 ML AMBER GLASS 500 ML AMBE. 500 ML SAMPLE ID GW09-0 SAMPLE ORDER MATRIX Soil ORDER Environmental Restoration Proje Los Alamos National Laborato SW-846:7196A SW-846:9250 EPA:365.2 EPA:376.1 EPA:300 Los Alamos, MN 87545 RELINQUISHED BY (printed name): (signature): printed name): RECEIVED BY (signature): CONT.

Sample Custody Seal





Daily Activity L	LOG Sheet of
Date:	
Technical Area: Operate	ple Unit:
Site Work Plan:	
Signature:(print name and title, then sign)	
Comments:	
	4,011
	in Social
	in title in
	THE FOLLING
1,510	
Aline Ma	
This form is available online via a line	
is Alallan	
: 101m/3	
This	
SOR 04 04 R5	Los Alamos National Laboratory
SOP-01.04, R5	Environmental Restoration

Radiological Screening Data Release Form The SMO received the following samples (list samples by number) without radiological screening data. The SMO delays shipping of these samples until radiological screening documentation arrives at the SMO. I understand that it is my responsibility to ensure that this information arrives at the SMO in a timely If holding times are missed because screening data do not arrive, I will pick up the samples when called to do so. The following samples (list by sample number) do not require radiological screening Wailable online via a for the reason stated. Reason: Signature _____ Printed name ______ Telephone Number Date **Los Alamos National Laboratory** SOP-01.04, R5 **Environmental Restoration**

List of Acronyms and Abbreviations

COC chain of custody

DCC Document Control Coordinator

ER environmental restoration

FTL Field Team Leader

LANL Los Alamos National Laboratory

PPE personal protective equipment

PTL Project Team Leader

QP quality procedure

QPPL Quality Program Project Leader

SCL sample collection log

SMO sample management office

SOP standard operating procedure

SSHASP site-specific health and safety plan

UTR University of California Technical Representative